Lausanne Integrative Metabolism and Nutrition Alliance (LIMNA)
SEMINAR

Tuesday May 13, 2014
10.00am

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“Transcriptional regulatory network controlling hepatic fatty acid metabolism”

Hosts: Kristina Schoonjans and Johan Auwerx

Conference Room: **SV 1717A**
EPFL - Lausanne

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**Abstract**

Hepatic fatty acid metabolism is a tightly controlled process that involves regulation at the levels of uptake, oxidation, de novo synthesis and export to the circulation. Regulation is achieved by the action of hormones, like insulin, or intracellular metabolites, notably fatty acids and sterols, that can activate transcription factors, including nuclear hormone receptors (PPARα, PPARγ, LXR), the carbohydrate response element binding protein ChREBP and the sterol regulated factor SREBP1c. Control of the metabolic transcription factors should be a coordinated process, since in most cases multiple factors are involved in the regulation of different sets of genes under specific metabolic states. In this case, HNF4a is of particular interest given its crucial function in a regulatory network required for maintenance of the hepatic phenotype, as well as its role in the regulation of several metabolic metabolic genes involved in gluconeogenesis, bile acid synthesis, conjugation and transport.